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MEDICINAL SIGNIFICANCE OF CINNAMOMUM SPP

Rashmi Mishra*

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ABSTRACT

This study mainly deals with the benefits of Cinnamomum spp.which includes,Cinnamomum zeylanicum(Dalchini),cinnamomum tammala(Tejpatta0,cinnamomum camphora(Kapoor).These plants are studies as they are associated with our daily habbits.

KEYWORDS: Cinnamomum zeylanicum , Cinnamomum tamala;Cinnamomum camphora; aromatic oil , antimicrobial properties,

INTRODUCTION

Countries like Nepal , India and China have been using crude plants as medicine since Vedic period. A major part of the total population in developing countries still uses traditional folk medicine obtained from plant resources (Farnsworth 1994). With an estimation of WHO that as many as 80% of worlds population living in rural areas rely on herbal traditional medicines as their primary health care, the study on properties and uses of medicinal plants are getting growing interests. In recent years this interest to evaluate plants possessing antibacterial activity for various diseases is growing. Based on local use of common diseases and Ethnobotanical knowledge, an attempt has been made to assess the antibacterial properties of selected medicinal plants.VIZ. Ocimum sanctum (Tulsi), Origanum majorana (Ram Tulsi), Cinnamomum zeylanicum (Dalchini).

Cinnamon is a common spice used by different cultures around the world for several centuries. It is obtained from the inner bark of trees from the genus Cinnamomum, a tropical evergreen plant that has two main varieties; *Cinnamomum zeylanicum* (CZ) and Cinnamon cassia (CC) (also known as *Cinnamomum aromaticum/* Chinese cinnamon). In addition to its culinary uses, in native Ayurvedic medicine Cinnamon is considered a remedy for respiratory, digestive and gynaecological ailments. Almost every part of the cinnamon tree including the bark, leaves, flowers, fruits and roots, has some medicinal or culinary use. The volatile oils obtained from the bark, leaf, and root barks vary significantly in chemical composition, which suggests that they might vary in their pharmacological effects as well. The different parts of the plant possess the same array of hydrocarbons in varying proportions, with primary constituents such as; cinnamaldehyde (bark), eugenol (leaf) and camphor (root). Thus cinnamon offers an array of different oils with diverse characteristics, each of which determines its' value to the different industries. For example the root which has camphor as the main constitute, has minimal commercial value unlike the leaf and bark .It is this chemical diversity that is likely to be the reason for the wide-variety of medicinal benefits observed with cinnamon.

CZ, also known as Ceylon cinnamon (the source of its Latin name, zeylanicum) or 'true cinnamon' is indigenous to Sri Lanka and southern parts of India. Three of the main components of the essential oils obtained from the bark of CZ are trans-cinnamaldehyde, eugenol, and linalool, which represent 82.5% of the total composition. Trans-cinnamaldehyde, accounts for approximately 49.9–62.8% of the total amount of bark oil. Cinnamaldehyde and eugenol are also the major components of CZ extracts .A brief comparison of the two main varieties of cinnamon (CZ and CC) is included as a Additional file 1.

One important difference between CC and CZ is their coumarin (1,2-benzopyrone) content .The levels of coumarins in CC appear to be very high and pose health risks if consumed regularly in higher quantities. According to the German Federal Institute for Risk Assessment (BfR), 1 kg of CC (CC) powder contains approximately 2.1-4.4 g of coumarin,

which means 1 teaspoon of CC powder would contain around 5.8-12.1 mg of coumarin .This is above the Tolerable Daily Intake (TDI) for coumarin of 0.1mg/kg body weight/day recommended by the European Food Safety Authority (EFSA). The BfR in its report specifically states that CZ contains 'hardly any' coumarin . Coumarins are secondary phyto-chemicals with strong anticoagulant, carcinogenic and hepato-toxic properties . underlying mechanisms for the coumarin-related toxic effects are yet to be completely elucidated.. Due to the high concentrations in CC (compared with other foods), despite the relatively low amounts of the consumption of spices, studies have shown than coumarin exposure from food consumption is mainly due to CC. The EFSA advocates against the regular, long term use of CC as a supplement due to its coumarin content .In addition, according to currently available evidence coumarin does not seem to play a direct role in the observed biological effects of CC. Hence, although CC has also shown many beneficial medicinal properties, its' coumarin content is likely to be an obstacle against regular use as a pharmaceutical agent, unlike in the case of CZ.

In-vitro and *in-vivo* studies in animals and humans from different parts of the world have demonstrated numerous beneficial health effects of CZ, such as anti-inflammatory properties, anti-microbial activity, reducing cardiovascular disease, boosting cognitive function and reducing risk of colonic cancer [12]. This paper aims to systematically review the scientific literature and provide a comprehensive summary on the potential medicinal benefits of 'True Cinnamon' (*Cinnamomum zeylanicum*). We also aim to provide a scientific guide to researchers on the potential areas for future research based on the positive findings obtained thus far from studies conducted by various research teams from around the world.

The health benefits of camphor essential oil include it properties as a stimulant, antispasmodic, antiseptic, decongestant, anesthetic, sedative and nervous pacifier, antineuralgic, anti-inflammatory, disinfectant, and insecticide substance.

The essential oil of camphor is obtained during the process of extraction of camphor from two types of camphor trees. The first one is the Common Camphor tree, bearing the scientific name *Cinnamonum Camphora*, from which the common camphor is obtained. The second variety is the Borneo Camphor tree, which is where Borneo Camphor is derived; it is scientifically known as *Dryobalanops Camphora*. The camphor oil obtained from both have similar properties, but they differ slightly in aroma and in the concentration of various compounds found in them. Camphor oil is an effective stimulant, which boosts the activity of the circulatory system, metabolism, digestion, secretion and excretion. This property helps in treating problems and ailments associated with improper circulation, digestion, sluggish or overactive metabolic rates, obstructed secretions, and a wide variety of other less common conditions. Camphor oil is an excellent disinfectant, insecticide and germicide. It can be added to drinking water to disinfect it, particularly during the summer and in rainy seasons when there is a higher chance of water becoming infected. An open bottle or container of camphor oil, or burning a piece of cloth soaked in camphor oil, drives away insects and kills germs. A drop or two of camphor oil, mixed with a large quantity of food grains, keep those food items safe from insects. Camphor is also used in many medical preparations such as ointments and lotion to cure skin diseases, as well as bacterial and fungal infections of the skin. When mixed into bathing water, camphor oil disinfects the whole body externally and kills lice or other small parasites of bugs that might be on your body.

They are often labeled as "Indian bay leaves," or just "bay leaf", causing confusion with the leaf from the baylaurel, a tree of Mediterranean origin in a different genus, and the appearance and aroma of the two are quite different. Bay laurel leaves are shorter and light to medium green in color, with one large vein down the length of the leaf, while *tejpat* leaves are about twice as long and wider, usually olive green in color, and with three veins down the length of the leaf. True *tejpat* leaves impart a strong cassia- or cinnamon-like aroma to dishes, while the bay laurel leaf's aroma is more reminiscent of pine and lemon.It reduces the blood sugar.

The WHO notes however that "inappropriate use of traditional medicines or practices can have negative or dangerous effects" and that "further research is needed to ascertain the efficacy and safety" of several of the practices and medicinal plants used by traditional medicine systems The line between alternative medicine and quackery is a contentious subject.

Traditional medicine may include formalized aspects of folk medicine, that is to say longstanding remedies passed on and practised by lay people. Folk medicine consists of the healing practices and ideas of body physiology and health preservation known to some in a culture, transmitted informally as general knowledge, and practiced or applied by anyone in the culture having prior experience. Folk medicine may also be referred to as traditional medicine, alternative medicine, indigenous medicine, or natural medicine. These terms are often considered interchangeable, even though some authors may prefer one or the other because of certain overtones they may be willing to highlight. In fact, out of these terms perhaps only *indigenous medicine* and *traditional medicine* have the same meaning *folk medicine*, while the others should be understood rather in a modern or modernized contex.Though the use of traditional medicine without knowledge can prove to be injurious but it is never dangerous,Herbal use in daily daitery habit is healthy and befificial.

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